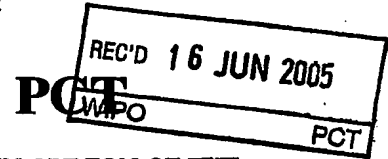


PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
JOHN H. THOMAS
JOHN H. THOMAS, P.C.
536 GRANITE AVENUE
RICHMOND, VA 23226



WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference STEPHENS 3-PCT		Date of mailing (day/month/year) 14 JUN 2005
FOR FURTHER ACTION See paragraph 2 below		
International application No. PCT/US05/00954	International filing date (day/month/year) 12 January 2005 (12.01.2005)	Priority date (day/month/year) 28 January 2004 (28.01.2004)
International Patent Classification (IPC) or both national classification and IPC IPC(7): C10L 5/36 and US Cl.: 44/530, 531, 532, 533, 534, 541, 590, 592, 606, 608		
Applicant STEPHENS AND COMPANY, LLC		

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Cephia D. Toomer Telephone No. 571-272-1700
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/00954

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/00954

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>2, 4, 6, 9, 10, 12, 16-25, 29, 31-35, 37</u>	YES
	Claims <u>1, 3, 5, 7, 8, 11, 13-15, 26-28, 30, 36</u>	NO
Inventive step (IS)	Claims <u>2, 4, 6, 12, 16-25, 29, 31-34, 37</u>	YES
	Claims <u>1, 3, 5, 7-11, 13-15, 26-28, 30, 35, 36</u>	NO
Industrial applicability (IA)	Claims <u>1-37</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1, 5, 11 and 13-15 lack novelty under PCT Article 33(2) as being anticipated by Aldrich.

Aldrich teaches heavy-duty polypropylene funnels. The funnels are conical in shape with an opening that is larger than the opposing opening. See product sheet.

Accordingly, Aldrich teaching all the limitations of the claims anticipates the claims.

Claims 1, 3, 5, 7, 8, 11, 13, 15, 26-28, 30 and 36 lack novelty under PCT Article 33(2) as being anticipated by WO 03/080770.

WO teaches a device for lighting a fire comprising a combustible cone-shaped grille made of wood and a combustible burner that fits inside of the grille. The grille contains a central hole for the head and the bottom is a larger circular hole. The sides of the grille are open. See abstracts in their entireties.

Accordingly, WO teaching all the limitations of the claims anticipates the claims.

Claims 9, 10 and 35 lack an inventive step under PCT Article 33(3) as being obvious over WO 03/080770.

WO has been discussed above. WO fails to teach the cross-sectional thickness of the grille or the weight of the grille. However, the thickness of the walls is a result effective variable that may be optimized by one's desire to control the rate of combustion of the grille. With respect to the weight of the combustible product, this to is a result effective variable that may be optimized for the best results. The skilled artisan recognizes that the heavier the grille the longer it will burn. Furthermore, limitations relating to the size of the grille are not sufficient to distinguish over the prior art given that the prior art grille performs the same function as the combustible product of the present invention.

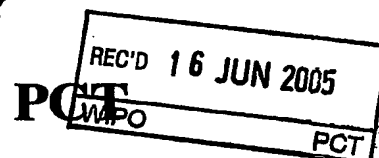
Claims 1-37 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Claims 2, 4, 6, 12, 14, 16-25, 29, 31-34 and 37 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed combustible product.

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Date of mailing (day/month/year) 14 JUN 2005		
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- ☐ **Box No. IV** Lack of unity of invention
- ☒ **Box No. V** Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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2. FURTHER ACTION

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Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Cephia D. Toomer Telephone No. 571-272-1700 <div style="text-align: right;"> </div>
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US05/00954

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4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US05/00954

Box No. V. Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>2, 4, 6, 9, 10, 12, 16-25, 29, 31-35, 37</u>	YES
	Claims <u>1, 3, 5, 7, 8, 11, 13-15, 26-28, 30, 36</u>	NO
Inventive step (IS)	Claims <u>2, 4, 6, 12, 16-25, 29, 31-34, 37</u>	YES
	Claims <u>1, 3, 5, 7-11, 13-15, 26-28, 30, 35, 36</u>	NO
Industrial applicability (IA)	Claims <u>1-37</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and explanations:

Claims 1, 5, 11 and 13-15 lack novelty under PCT Article 33(2) as being anticipated by Aldrich.

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Claims 1-37 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

Claims 2, 4, 6, 12, 14, 16-25, 29, 31-34 and 37 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed combustible product.